UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *11 August 2009*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-20* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is responsive to the after final amendment filed on 08/11/2009.

Claims 1-20 are pending; claims 1-20 are rejected.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   **Claims 1-2, 7-12, 17-20 are rejected under 35 U.S.C. 102(e) as being**

anticipated by Akman (US Patent 7,146,410, B1).

As to claim 1, **Akman** teaches a method comprising:

configuring a proxy processing strategy in a signaling proxy, wherein the proxy

processing strategy includes information about a message that needs to be proxy

processed (*translating IP addresses*, **Akman, Col. 1, Line 64 – Col. 2, Line 18**); and

performing proxy processing on a received message and forwarding the

message after the signaling proxy determining that the message needs to be proxy

processed by the signaling proxy according to the configured strategy (**Akman, Col. 1,**

Line 64 – Col. 2, Line 18; Akman, Col. 3, Line 43 - Col. 4, Line 13; Akman, Col. 4,

Line 14 -60; Akman, Col. 4, Line 61 – Col. 5, Line 59).

As to claim 2, **Akman** teaches a method for implementing signaling proxy

according to claim 1, wherein said strategy comprises: identifying a received message

which needs to be processed by the signaling proxy by one or a combination of any of

VPN ID, VLAN ID, MPLS ID, IP protocol type, source IP address, source port,

destination IP address, destination port of the received message (**Akman, Col. 3, Line**

4-36).

As to claim 7, **Akman** teaches a method for implementing signaling proxy

according to claim 1, wherein before the signaling proxy receives a message, a

forwarding strategy is configured in a network device through which a message sent by

a proxied side passes (*translating IP addresses*, **Akman, Col. 1, Line 64 – Col. 2, Line**

18), the forwarding strategy stipulating that a forwarding path of the message to be

proxy processed passes through the corresponding signaling proxy (**Akman, Col. 1,**

Line 64 – Col. 2, Line 18).

As to claim 8, **Akman** teaches a method for implementing signaling proxy according to claim 7, wherein when the network device (*NAT device,* **Akman, Col. 2, Line 56-66**) receives a message which is sent from the proxied side and needs to be proxy processed, it forwards the received message to the signaling proxy according to the forwarding strategy (**Akman, Col. 1, Line 64 – Col. 2, Line 18; Akman, Col. 3, Line 43 - Col. 4, Line 13; Akman, Col. 4, Line 14 -60; Akman, Col. 4, Line 61 – Col. 5, Line 59**).

As to claim 9, **Akman** teaches a method for implementing signaling proxy according to claim 7, wherein in the signaling proxy, information of the forwarding path of a message returned from the server is obtained in a configuration or study way and recorded; after the signaling proxy receives the message returned from the server, it forwards the message according to the recorded information of the forwarding path (**Akman, Col. 3, Line 43 - Col. 4, Line 13; Akman, Col. 4, Line 14 -60; Akman, Col. 4, Line 61 – Col. 5, Line 59**).

As to claim 10, **Akman** teaches a method for implementing signaling proxy according to claim 7, wherein said network device is configured to be a default gateway of the signaling proxy, and when the signaling proxy receives the message returned by the server, it processes said message and sends the processed message to the default gateway (**Akman, Fig. 1A, 160.** *Note that there is only one NAT router in the network of 175.X.X.X in* **Fig. 1A,** *therefore default gateway is disclosed.* **Akman, Col. 1, Line**

64 – Col. 2, Line 18; Akman, Col. 3, Line 43 - Col. 4, Line 13; Akman, Col. 4, Line

14 -60; Akman, Col. 4, Line 61 – Col. 5, Line 59).

As to claim 11, **Akman** teaches an apparatus comprising:

a unit for receiving and recognizing messages, which is configured with a proxy

processing strategy, used to recognize a received message which needs to be

processed, wherein the proxy processing strategy includes information about a

message that needs to be proxy processed (**Akman, Col. 1, Line 64 – Col. 2, Line 18;**

Akman, Col. 3, Line 43 - Col. 4, Line 13; Akman, Col. 4, Line 14 -60; Akman, Col. 4,

Line 61 – Col. 5, Line 59);

a unit for processing messages, which proxy processes said message that needs

to be processed (*translating IP addresses*, **Akman, Col. 1, Line 64 – Col. 2, Line 18**);

and

a unit for forwarding messages, which forwards the processed message to a

corresponding server (routes the control protocol message, **Akman, Col. 1, Line 64 –**

Col. 2, Line 18).

As to claim 12, **Akman** teaches the apparatus according to claim 11, wherein

said proxy processing strategy comprises: identifying a received message which needs

to be processed by the signaling proxy by one or any combination of VPN ID, VLAN ID,

MPLS ID, IP protocol type, source IP address, source port, destination IP address,

destination port of the received message (**Akman, Col. 3, Line 4-36**).

As to claim 17, **Akman** teaches a method for implementing signaling proxy

according to claim 2, wherein before the signaling proxy receives a message, a

forwarding strategy is configured in a network device through which a message sent by

a proxied side passes, the forwarding strategy stipulating that a forwarding path of the

message to be proxy processed passes through the corresponding signaling proxy

(**Akman, Col. 1, Line 64 – Col. 2, Line 18**).

As to claim 18, **Akman** teaches a method for implementing signaling proxy

according to claim 17, wherein when the network device (*NAT device*, **Akman, Col. 2,

Line 56-66**) receives a message which is sent from the proxied side and needs to be

proxy processed, it forwards the received message to the signaling proxy according to

the forwarding strategy (**Akman, Col. 1, Line 64 – Col. 2, Line 18; Akman, Col. 3,

Line 43 - Col. 4, Line 13; Akman, Col. 4, Line 14 -60; Akman, Col. 4, Line 61 – Col.

5, Line 59**).

As to claim 19, **Akman** teaches a method for implementing signaling proxy

according to claim 17, wherein in the signaling proxy, information of the forwarding path

of a message returned from the server is obtained in a configuration or study way and

recorded; and after the signaling proxy receives the message returned from the server,

it forwards the message according to the recorded information of the forwarding path

(**Akman, Col. 3, Line 43 - Col. 4, Line 13; Akman, Col. 4, Line 14 -60; Akman, Col. 4, Line 61 – Col. 5, Line 59**).

As to claim 20, **Akman** teaches that wherein said network device is configured to be a default gateway of the signaling proxy, and when the signaling proxy receives the message returned by the server, it processes said message and sends the processed message to the default gateway (**Akman, Fig. 1A, 160.** *Note that there is only one NAT router in the network of 175.X.X.X in* **Fig. 1A**, *therefore default gateway is disclosed.* **Akman, Col. 1, Line 64 – Col. 2, Line 18; Akman, Col. 3, Line 43 - Col. 4, Line 13; Akman, Col. 4, Line 14 -60; Akman, Col. 4, Line 61 – Col. 5, Line 59**).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   **Claims 3-6, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akman in view of Sethi (US Patent 7,454,525 B1).**

As to claim 3, **Akman** substantially discloses a method as set forth in claim 1 above.

Akman does not explicitly disclose setting destination address of a message to be proxy processed by the signaling proxy to be a local address.

However **Sethi** teaches setting destination address of a message to be proxy processed by the signaling proxy to be a local address (*a gateway (at the edge of an enterprise network) implementing network address translation (NAT) may translate a source/destination address of a packet before forwarding the packet*, **Sethi, Col. 1, Line 35-44**; **Sethi, Col. 6, Line 22-31**).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use destination address translation of **Sethi** on the method of **Akman** in order to enable communication when signaling protocol packets contain embedded address subject to translation for security, ease of network configuration, and a lack of IP addresses.

As to claim 4, **Akman** substantially discloses a method as set forth in claim 2 above and when receiving a message from a proxied side, the signaling proxy determines that the received message needs to be proxy processed according to information (**Akman, Col. 4, Line 14-60**).

Akman does not explicitly disclose the determination is based on the information of its destination address; replacing destination address of the received message with a

server address and source address with a server side address of the signaling proxy

respectively, and forwarding the message.

However **Sethi** teaches a determination is based on the information of its

destination address; replacing destination address of the received message with a

server address and source address with a server side address of the signaling proxy

respectively, and forwarding the message (**Sethi, Col. 6, Line 22-31**).

Therefore it would have been obvious to one having ordinary skill in the art at the

time the invention was made to use destination address translation of **Sethi** on the

method of **Akman** in order to enable communication when signaling protocol packets

contain embedded address subject to translation for security, ease of network

configuration, and a lack of IP addresses.

As to claim 5, **Akman-Sethi** teaches a method for implementing signaling proxy

according to claim 4, wherein after receiving a message sent from the server, the

signaling proxy replaces source address of the message sent from the server with

destination address of said original message sent from the proxied side and destination

address of the message sent from the server with a proxied side address respectively,

and forwards the message (**Sethi, Col. 6, Line 6-31**).

As to claim 6, **Akman** substantially discloses a method as set forth in claim 1

above and changing source IP addresses of the received message, replacing data of

the application layer, updating a signaling state and/or creating session table items

(**Akman, Col. 4, Line 61- Col. 5, Line 34**).

      Akman does not explicitly disclose changing destination IP addresses and port

numbers.

      However **Sethi** teaches changing destination IP addresses and port numbers (*a*

gateway (at the edge of an enterprise network) implementing network address

translation (NAT) may translate a source/destination address of a packet before

forwarding the packet, **Sethi, Col. 1, Line 35-44**; **Sethi, Col. 6, Line 6-31**).

      Therefore it would have been obvious to one having ordinary skill in the art at the

time the invention was made to use destination address translation of **Sethi** on the

method of **Akman** in order to enable communication when signaling protocol packets

contain embedded address subject to translation for security, ease of network

configuration, and a lack of IP addresses.

      As to claim 13, **Akman** substantially discloses an apparatus as set forth in claim

11 above and changing source IP addresses of the received message, replacing the

data of the application layer, updating a signaling state and/or creating session table

items (**Akman, Col. 4, Line 61- Col. 5, Line 34**).

      Akman does not explicitly disclose changing destination IP addresses and port

numbers.

      However **Sethi** teaches changing destination IP addresses and port numbers (*a*

gateway (at the edge of an enterprise network) implementing network address

translation (NAT) may translate a source/destination address of a packet before

forwarding the packet, **Sethi, Col. 1, Line 35-44**; **Sethi, Col. 6, Line 6-31**).

Therefore it would have been obvious to one having ordinary skill in the art at the

time the invention was made to use destination address translation of **Sethi** on the

apparatus of **Akman** in order to enable communication when signaling protocol packets

contain embedded address subject to translation for security, ease of network

configuration, and a lack of IP addresses.

As to claim 14, **Akman-Sethi** teaches the apparatus according to claim 13,

wherein after the signaling proxy receives a message sent from the server, it replaces

source address of the message with destination address of said original message sent

from a proxied side and destination address of the message sent from the server with a

proxied side address respectively, and forwards the message according to the replaced

addresses (**Sethi, Col. 6, Line 6-31**).

As to claim 15, **Akman-Sethi** teaches a method for implementing signaling proxy

according to claim 3, further comprising: when receiving a message from a proxied side,

the signaling proxy determines that the received message needs to be proxy processed

according to information of its destination address; replacing destination address of the

received message with a server address and source address with a server side address

of the signaling proxy respectively, and forwarding the message (*a gateway (at the*

edge of an enterprise network) implementing network address translation (NAT) may

translate a source/destination address of a packet before forwarding the packet, **Sethi, Col. 1, Line 35-44**; **Sethi, Col. 6, Line 22-31**).

As to claim 16, **Akman** substantially discloses a method as set forth in claim 2 above and changing source IP addresses of the received message, replacing data of the application layer, updating a signaling state and/or creating session table items (**Akman, Col. 4, Line 61- Col. 5, Line 34**).

Akman does not explicitly disclose changing destination IP addresses and port numbers.

However **Sethi** teaches changing destination IP addresses and port numbers (*a gateway (at the edge of an enterprise network) implementing network address translation (NAT) may translate a source/destination address of a packet before forwarding the packet*, **Sethi, Col. 1, Line 35-44**; **Sethi, Col. 6, Line 6-31**).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use destination address translation of **Sethi** on the method of **Akman** in order to enable communication when signaling protocol packets contain embedded address subject to translation for security, ease of network configuration, and a lack of IP addresses.

Response to Arguments

5.   Applicant's arguments, see page 8-9, filed 8/11/2009, with respect to final office action on 7/2/2009 have been fully considered and are persuasive. The final office action on 7/2/2009 has been withdrawn.

6.   Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RUOLEI ZONG whose telephone number is (571)270-7522. The examiner can normally be reached on 8:30 AM - 6:00 PM, 5-4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WING F. CHAN can be reached on (571)272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. Z./   /Wing F. Chan/
Examiner, Art Unit 2441   Supervisory Patent Examiner,
                                                                   Art Unit 2441

8/17/2009